

IN THE CLAIMS

1. (Currently Amended) A multi-channel digital data sending-out apparatus comprising:
 - management means for supervising the information gathered from at least one of an information source;
 - programming means for supervising the information of the material digital data being sent and programming controlling the progress of the digital data to be sent out;
 - registering means for registering the information of the materials digital data to be sent out;
 - holding means for holding a plurality of said materials the digital data;
 - sending-out means for sending out the plural materials digital data held by said holding means to a transmission path as a multi-channel digital data; and
 - ~~holding means for holding a plurality of said materials; and~~
 - connection means for interconnecting said management means, programming means, registering means, holding means and the sending-out means to permit each of these said means to access at least one an other of said means.
2. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 1, wherein said sending-out means comprises:
 - first sending-out means for doing sending processing;
 - second sending-out means for doing sending processing; and

switching means for switching one of the first sending-out means or the second sending-out means to the other if one of said first or second one of the sending-out means is in disorder.

3. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 1 further comprising:

send-out management means for supervising controlling the sending-out of multi-channel digital data; and

multi-channel monitoring means for monitoring the sending-out of the multi-channel digital data.

4. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 1 further comprising:

conversion means for converting the format of the plural materials digital data held by said holding means into a transmission format, by software and for multiplexing time information, service identification information, and the service management information thereon to generate a stream which is outputted sent out.

5. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 4, wherein said conversion means includes comprises:

auxiliary holding means for holding at least a two-day installment installments of the digital data materials, progress information and the system configuration information held by said holding means.

6. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 5, wherein said system configuration information is updated using a portion of the a file name thereof.

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7. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 4, wherein said conversion means includes comprises:

current operating system conversion means in an actually working state;
and
stand-by conversion means worked in substitution to be substituted for
said current operating system conversion means in case of a malfunction of the
current operating system malfunctioning thereof.

8. (Currently Amended) A multi-channel digital data sending-out method comprising:

a management step for supervising the information gathered from at least
one of an information source;

a programming step for supervising the information of the material digital
data being sent and programming controlling the progress of the digital data to be
sent out;

a registering step for registering the information of the material digital
data to be sent out;

a holding step for holding a plurality of said materials the digital data;

a sending-out step for sending out the plural materials digital data held by
said holding means to a transmission path as multi-channel digital data; and

a connection step for interconnecting the processing operations of said
management step, programming step, registering step, holding step and the
sending-out step so that the processing operation at each of said steps will be
associated with the processing operation at least one an other of said steps.

9. (Currently Amended) A multi-channel digital data sending-out apparatus comprising:

holding means for a holding a plurality of materials digital data to be sent out;

reproducing means for reading out and reproducing the materials digital data held by said holding means;

encoding means for real-time encoding of the materials digital data reproduced by said reproducing means;

conversion means for converting the format of said plural materials the digital data held by said holding means or the plural materials digital data encoded in real-time by said encoding means into a format for transmission;

sending-out means for sending out the materials digital data converted by said conversion means to the transmission path as multi-channel digital data; and

connection means for interconnecting said holding means, reproducing means; encoding means; conversion means and sending-out means to permit each of these said means to access an at least one other of said means.

10. (Currently Amended) The multi-channel data sending-out apparatus according to claim 9, wherein said conversion means multiplexes the time information, service identification information and the service management information on said materials of said digital data into a sole single stream.

11. (Currently Amended) A multi-channel digital data sending-out method comprising:

a holding step for holding a material digital data to be sent out;

a reproducing step for reading out and reproducing the digital data material held by said holding step;

an encoding step for real-time encoding of the digital data material reproduced by said reproducing step;

a conversion step for converting the format of ~~said plural materials~~ the digital data held by said holding means or the ~~plural materials~~ digital data encoded in real-time by said encoding step into a format for transmission;

a sending-out step for sending out the ~~materials~~ digital data converted by said conversion step to ~~the~~ a transmission path as multi-channel digital data; and

a connection step for interconnecting the processing operations of said holding step, reproducing step, encoding step, conversion step, and the sending-out step so that the processing operation at ~~of~~ each of said steps will be is associated with the processing operation at least one ~~an~~ other of said steps.

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12. (Currently Amended) A multi-channel digital data sending-out apparatus comprising:
 - holding means for holding ~~a plurality of~~ materials digital data to be sent out;
 - conversion means for converting the format of ~~said plural materials~~ the digital data held by said holding means into a format for transmission;
 - a sending-out step means for sending out the ~~materials~~ digital data converted by said conversion step means to ~~the~~ a transmission path as multi-channel digital data;

monitoring means for monitoring ~~materials~~ digital data read out from said holding means, ~~materials~~ digital data converted by said conversion means or ~~materials~~ digital data ~~said~~ sent out by said sending-out means; and

supplying means for supplying the ~~materials~~ digital data read out from said holding means, ~~materials~~ digital data converted by said conversion means or ~~materials~~ digital data sent out by said sending-out means.

13. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 12, wherein said monitoring means further monitors said ~~materials~~ digital data transmitted to the transmission path from said sending-out means, received and demodulated.

14. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 12, wherein said monitoring means includes detection means for detecting ~~the a~~ level of the digital data each material.

15. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 14, wherein said detection means issues an alarm if said ~~materials~~ digital data substantially are ~~is~~ not monitored for longer than a predetermined period.

16. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 12, wherein said sending-out means comprises:
first sending-out means for ~~doing~~ performing sending-out processing;
second sending-out means for ~~doing~~ performing sending-out processing;
and

switching means for switching ones for from the first sending-out means or the second sending-out means to the other of said first and second sending out means in the event of a malfunction of either said first or second sending out means if said one of the sending out means is in disorder.

17. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 16, wherein said monitoring means includes a switch for selecting ~~materials~~ digital data to be monitored, and wherein said switch is being controlled responsive to switching by said switching means.

18. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 12, wherein said monitoring means for monitoring the ~~material~~ digital data converted by said conversion means displays the information concerning a ~~material~~ digital data converted ~~based on a progress table~~ by said conversion means and sent out, and a ~~material~~ digital data which is to be converted and sent out, in a progress table.

19. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 12 further comprising:
reproducing means for reproducing a ~~material~~ digital data transmitted from said sending-out means to the transmission path, and wherein the reproduced digital data is designated on the progress table.

20. (Currently Amended) A multi-channel digital data sending-out method comprising:
a holding step for holding a ~~plurality of materials~~ digital data to be sent out;

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a conversion step for converting the format of ~~said plural materials~~ the digital data held by said holding step into a format for transmission;
a sending-out step for sending out the ~~materials~~ digital data converted by said conversion step to ~~the~~ a transmission path as multi-channel digital data;
a monitoring step for monitoring ~~materials~~ the digital data read out from said holding step, ~~materials~~ digital data converted by said conversion step or digital data ~~materials~~ sent out by said sending-out step; and
a supplying step for supplying the ~~materials~~ digital data read out from said holding step, ~~materials~~ digital data converted by said conversion step or ~~materials~~ digital data sent out by said sending-out step.

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21. (Currently Amended) A multi-channel digital data sending-out apparatus comprising:
programming means for supervising the information of digital data a ~~material~~ to be sent out, programming the digital data to be sent out as to its progress, and for generating ~~the~~ progress information;
holding means for holding the information ~~on~~ of the ~~materials~~ digital data, the progress information, and any other information necessary for sending out the ~~materials~~ digital data;
conversion means for converting the format of the ~~plural~~ materials digital data into a format for transmission;
sending-out means for sending out the ~~plural~~ materials digital data converted by said conversion means to ~~the~~ a transmission path as multi-channel digital data; and

monitoring means for monitoring said programming means, conversion means or said sending-out means as to malfunctioning thereof so that required the information held by said holding means ~~and which is currently required will be is~~ supplied to said programming means, conversion means or said sending-out means.

22. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 21, wherein said sending-out means comprises;

first sending-out means for doing performing sending processing;

second sending-out means for doing performing sending processing; and

switching means for switching one of the first sending-out means or the second sending-out means to the other if said one of the first or second sending-out means is in disorder.

23. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 22, wherein said first sending-out means and the said second sending-out means monitor each other so that, if one of the first sending-out means and the second sending-out means ~~is in disorder~~ malfunctions, the other advises signals said monitoring means of that effect.

24. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 22, wherein the one of said first sending-out means or the said second sending-out means that is actually operating, advises said holding means in a pre-set manner.

25. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 21, wherein said conversion means comprises: ~~is made up of~~

a current operating system converting means; ~~in an actually working state~~
and

stand-by ~~exchanging~~ converting means ~~worked in substitution for said~~
~~current operating system converting means~~ in case of malfunctioning of the
current operating system converting means.

26. (Currently Amended) The multi-channel digital data sending-out apparatus according to claim 21, wherein said conversion means includes auxiliary holding means for holding, ~~for assurance sake~~, at least a one-day installment of the information held by said holding means.

27. (Currently Amended) A multi-channel data sending-out method comprising:

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a programming step for supervising the information of ~~a material~~ digital data to be sent out, ~~for~~ programming the digital data to be sent out as to its progress, and for generating ~~the~~ progress information;

a holding step for holding the information ~~on the materials~~ of the digital data, the progress information and any other information necessary for sending out the ~~materials~~ digital data;

a conversion step for converting the format of the ~~plural materials~~ digital data at said holding step into a format for transmission;

a sending-out step for sending out the ~~plural materials~~ digital data converted by said conversion means to ~~the~~ a transmission path as multi-channel digital data; and

a monitoring step for monitoring errors in said steps so that, if errors occur in the processing in any of the above steps, the information held in said holding

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step and which is currently required will be presented for and utilized in processing in each of said steps.

Claims 28-34 (Cancelled)